

Application No. 10/780,087

Docket No.: 65856-0054

REMARKS

Claims 1-37 are pending. Claims 1, 12, and 26 are independent claims. In the Office Action, claims 1, 3-10, 30, 31 and 35 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. 6,266,527 ("Mintz") in view of U.S. 6,819,924 ("Ma"). Claims 12, 13, 19-29, and 32-34 were rejected under Section 103 as allegedly unpatentable over the combination of U.S. Pub. 2002/0119769 ("Heinonen") and Ma.¹ Claim 2 was rejected under Section 103 as allegedly unpatentable over Mintz, Ma and Heinonen. Claim 11 was rejected under Section 103 as allegedly unpatentable over Mintz and Ma. Claims 13-18 were rejected under Section 103 as allegedly unpatentable over Heinonen and Ma.

Claim 30 is amended herein solely to put the claim in better condition for appeal should the Examiner decline to allow this application based on the arguments below. However, for at least the reasons set forth in the arguments that follow, all pending claims are believed to be in condition for allowance. Accordingly, the Examiner is respectfully urged to reconsider the foregoing rejections and to allow Applicants' claims.

I. Independent Claim 1 and the Claims Depending Therefrom

Claim 1 stands rejected as allegedly obvious over Mintz in view of Ma. However, for at least the following reasons, the Examiner has failed to state, and cannot maintain, a prima facie case of obviousness regarding claim 1. Accordingly, claim 1, and all claims depending therefrom, are in condition for allowance.

A. The prior art of record fails to teach or suggest a "processor . . . programmed to retrieve at least one measurement from at least one measurement device."

The Office Action contended that Mintz teaches the claim limitation in claim 1 of "wherein the processor is programmed to retrieve at least one measurement from at least one measurement device via the wireless communications device." However, Mintz includes no teaching or suggestion of a "measurement device" as required by claim 1 and accordingly cannot teach or suggest the foregoing claim limitation.

¹ The Office Action stated that Section 102 was the basis for rejecting claims 12, 13, 19-29, and 32-34, but these claims nonetheless appear to have been rejected under Section 103.

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As shown in Applicants' Figures 1A and 1B, a measurement device 120 is attached to a sensor 122 that is in turn associated with a component 123. The measurement device 120 wirelessly communicates, including communications of measurements, with a remote device 100 that includes a processor 102. (Specification, para. 14.) Clearly, the processor of claim 1 is not itself required to make any measurement. The invention of claim 1 requires that the measurement device perform any processing necessary to derive a measurement, and the measurement device is required to send a measurement to the processor.

Mintz, in contrast to the invention of claim 1, teaches transmitting raw data to a remote computer which then makes measurements based on the raw data. Specifically, Mintz discloses a remote "base station" which receives commands from a mobile terminal to start and stop making measurements of power and bit error rate from data received from the mobile terminal. (E.g., Mintz, col. 3, lines 6-16.) Mintz does not teach or suggest a measurement device at all associated with the mobile terminal, nor does Mintz teach or suggest sending measurements to the remote computer. Indeed, Mintz teaches away from the recited measurement device because Mintz teaches that all measurements are performed by his base station, and thus Mintz has no need for the measurement device required by claim 1.

Ma does not make up for the deficiencies of Mintz. Ma discloses "[a] quality measurement unit that conveniently attaches to equipment under test [and] identifies and evaluates [the] quality of recovered test signals communicated from a remote device, or a test signal communicated by the equipment under test." (Ma, Abstract.) While Ma's local quality measurement unit (LQMU) may receive test signals from a remote reference data storage unit (Ma, col. 3, lines 13-17), Ma contains absolutely no teaching or suggestion of the LQMU sending measurements to any processor, much less a processor connected to a wireless communications device, as is required by claim 1.

In sum, Ma, like Mintz, fails to teach or suggest the claim limitation in claim 1 of "wherein the processor is programmed to retrieve at least one measurement from at least one measurement device via the wireless communications device." For at least this reason, claim 1, and also claims 2-11, 30-31, and 35 depending therefrom, are all in condition for allowance.

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B. Mintz and Ma cannot be combined to suggest “the processor and the wireless communications device being external to an equipment.”

Claim 1 includes the requirement of “the processor and the wireless communications device being external to an equipment.” The Examiner conceded that Mintz does not teach this limitation, and cited Ma to make up for the acknowledged deficiencies of Mintz. (Office Action, page 3.) Assuming arguendo that Ma teaches a processor that is external to an equipment, the Examiner has nonetheless failed to state a prima facie case of obviousness with respect to claim 1 at least because (1) the Examiner has not show a motivation to combine Mintz and Ma, and (2) not only has the Examiner failed to show a reasonable expectation of success for the proposed combination of Mintz and Ma, but Mintz and Ma are in fact incapable of combination.

1. Neither Mintz nor Ma provides any motivation for their proposed combination.

The Examiner, citing Ma, asserted that it would have been obvious to combine Mintz and Ma “for the purpose of allowing the measured information to be shared throughout the system.” (Office Action, page 3.) However, as noted above, Ma teaches no more than a “quality measurement unit that conveniently attaches to equipment under test identifies and evaluates quality of recovered test signals communicated from a remote device.” (Ma, Abstract; emphasis added.) Thus, Ma does not teach the sharing of information throughout any “system,” and therefore could not possibly teach the benefits of such a teaching, if it such a teaching were even present in any of the prior art of record.

Moreover, even if Ma did teach the benefits of sharing information throughout some undefined system, Ma would still fail to provide motivation for a combination with Mintz to achieve the limitation of “the processor and the wireless communications device being external to an equipment.” The Examiner has pointed to no statement in Ma or any other prior art of record teaching the benefits of “the processor and the wireless communications device being external to an equipment.” Simply because Ma allegedly teaches a processor and a wireless communications external to an equipment does not mean that Ma provides any reason at all to add this limitation to Mintz, and indeed, Ma provides no such reason.

For at least these reasons, claim 1, and also claims 2-11, 30-31, and 35 depending therefrom, are all in condition for allowance.

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2. Mintz and Ma are incapable of combination.

Mintz teaches using a base station to measure the power and bit error rate in channels between the base station and a mobile terminal. (E.g., Mintz, col. 4, lines 12-16.) As noted above, Mintz's base station makes measurements of power and bit error rate based on signals received from the remote terminal. (Mintz, col. 4, lines 12-14.) The Examiner does not explain how Mintz could be modified with Ma's alleged processor and wireless communications device, and therefore has failed to state a prima facie case of obviousness at least by failing to state a case for a reasonable expectation of success in combining Mintz and Ma.

Moreover, Mintz and Ma simply could not be combined. The only element of Ma that could stand in for the recited processor of claim 1 is Ma's remote data storage unit (RSDU). (See Ma, Fig. 1.) The RSDU serves the function of communicating a test signal to an equipment under test. (Ma, Abstract.) However, Mintz has no "equipment under test." Mintz is directed simply to determining power levels and bit error rates at various points in a wireless network. (Mintz, col. 1, lines 10-14.) Upon receiving a "link balance" command, Mintz's base station merely measures power and bit error rates on an up-link channel. (Mintz, col. 4, lines 12-14.) There is simply no place in the structure disclosed by Mintz for another processor, much less the processor and wireless communication device allegedly disclosed by Ma.

For at least these reasons, claim 1, and also claims 2-11, 30-31, and 35 depending therefrom, are all in condition for allowance.

C. Applicants' dependent claims are separately patentable over the alleged combination of Mintz and Ma.

Provided herein are examples of Applicants' claims depending from claim 1 that are believed to be separately patentable over the alleged combination of Mintz and Ma. Applicants reserve the right to argue for the separate patentability of dependent claims not mentioned herein in future papers.

1. Claim 4

Claim 4 recites that "the processor is further programmed to configure the measurement device." The Examiner asserted that Mintz teaches this claim limitation. (Office Action, page 3.) However, Ma simply happens to use the word "configured" in explaining that the afore-mentioned RDSU "is configured as a mailbox." (Ma, col. 4, line 6.) Ma contains no disclosure regarding how

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the RDSU is so configured, and in any event the RDSU is not contended by the Examiner to represent a measurement device. For any of these independent reasons, claim 4 is separately in condition for allowance over the prior art of record.

2. Claim 10

Claim 10 recites that “the measurement device is selected from the group consisting of a gauge and a transducer.” The Examiner asserted that Ma teaches this limitation. (Office Action, page 4.) However, the cited portion of Ma is totally irrelevant to any use of a gauge or a transducer, instead discussing the synchronization of a local quality measurement unit with a test signal. (Ma, col. 4, lines 11-23.) Neither Mintz nor Ma contain any teaching or suggestion to use either a gauge or a transducer. Thus, claim 10 is clearly separately patentable over the prior art of record.

3. Claim 11

Claim 11 requires that “the wireless communications device is selectively attached to at least one second measurement output device.” The Examiner acknowledged that the combination of Mintz and Ma “fails to disclose” this limitation. (Office Action, page 8.) However, the Examiner contended that “the above limitation would not render the claims patentable over the applied references because it merely depends on the number of measuring devices one would like in the system without changing the scope of the invention in the applied reference.” Applicants respectfully disagree, inasmuch as selectively attaching the wireless communication device to at least one second measurement output device is a clear structural limitation of the invention of claim 11. The Examiner’s assertion that this limitation would have been obvious “for the purpose of obtaining more data about the system” has absolutely no basis in the cited prior art, nor is it even clear that this alleged benefit would be applicable in the context of the claimed invention, because it is wholly unclear what is the “system” to which the Examiner has referred. Accordingly, claim 11 is clearly separately patentable over the prior art of record.

4. Claim 30

Claim 30 recites that “the measurement relates to a component in the equipment.” The Examiner asserted that Ma teaches a measurement relating to an RF signal, which is a component in air. (Office Action, page 4.) However, even if an RF signal met the requirements of a “component,” which it does not, and even if air were a kind of equipment, such as a vehicle, which

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it is not, an RF signal cannot be considered a "component" of air at least because an RF signal is at most transmitted through air, or many other media, including a vacuum. Applicants respectfully submit that the components of air are gases such as oxygen and carbon dioxide, not electromagnetic waves such as RF signals. For at least these reasons, claim 30 is separately patentable over the prior art of record.

5. Claim 31

Claim 31 requires that "the equipment is a vehicle." The Examiner contended that Ma teaches the recited vehicle because Ma allegedly teaches monitoring an RF signal carried through air, asserted to be a vehicle. (Office Action, page 4.) However, as noted above regarding claim 30, air cannot be considered a vehicle for an RF signal at least because an RF signal can be transmitted through a vacuum, i.e., an electromagnetic wave such as an RF signal does not require a "vehicle." Moreover, the vehicle recited in claim 31 is limited to a vehicle that is an "equipment," which air plainly is not. For at least these reasons, claim 31 is separately patentable over the prior art of record.

II. Independent Claims 12 and 26 and the Claims Depending Therefrom

Independent claims 12 and 26 stand rejected as allegedly obvious over Heinonen in view of Ma. However, for at least the following reasons, the Examiner has failed to state, and cannot maintain, a prima facie case of obviousness regarding claims 12 and 26. Accordingly, claims 12 and 26, and all claims depending therefrom, are in condition for allowance.

A. The prior art of record fails to teach or suggest a "at least one sensor that provides at least one output related to a component in an equipment"

The Office Action contended that Heinonen teaches the limitation of claims 12 and 26 of "at least one sensor that provides at least one output related to a component," but fails to address the requirement that the recited component is "a component in an equipment." (Office Action, pages 5 and 6.) Further, Heinonen teaches at most a sensor providing output related to a component of the environment (e.g., Heinonen, para. 35). Plainly, Heinonen's environmental components do not providing any teaching or suggestion of "a component in an equipment." Nor does Ma, allegedly combined with Heinonen to meet the limitations of claim 1, provide any teaching or suggestion of

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“at least one sensor that provides at least one output related to a component in an equipment.”
Indeed, Ma in no way teaches or suggests a sensor at all.

For at least the foregoing reason, claim 12, and also claims 13-25 and 32-34 depending therefrom, are in condition for allowance. Similarly, claim 26, and also claims 27-29 and 37, are in condition for allowance.

B. Heinonen and Ma cannot be combined to suggest “a remote device that is external to the equipment.”

Claim 1 includes the requirement of “a remote device that is external to the equipment.” The Examiner conceded that Heinonen does not teach this limitation, and cited Ma to make up for the acknowledged deficiencies of Heinonen. (Office Action, page 3.) Assuming arguendo that Ma teaches a processor that is external to an equipment, the Examiner has nonetheless failed to state a prima facie case of obviousness with respect to claims 12 and 26 at least because (1) the Examiner has not shown a motivation to combine Heinonen and Ma, and (2) not only has the Examiner failed to show a reasonable expectation of success for the proposed combination of Heinonen and Ma, but Heinonen and Ma are in fact incapable of combination.

1. Neither Heinonen nor Ma provides any motivation for their proposed combination.

The Examiner, citing Ma, asserted that it would have been obvious to combine Heinonen and Ma “for the purpose of allowing the measured information to be shared throughout the system.” (Office Action, page 6.) However, for the reasons stated above regarding the alleged motivation to combine Mintz and Ma, this motivation is irrelevant to Applicants’ claims, and in fact motivation to combine Heinonen and Ma is lacking for at least the reasons stated above regarding the alleged motivation to combine Mintz and Ma.

For at least the foregoing reasons, claim 12, and also claims 13-25 and 32-34 depending therefrom, are in condition for allowance. Similarly, claim 26, and also claims 27-29 and 37, are in condition for allowance.

2. Heinonen and Ma are incapable of combination.

Heinonen teaches using cellular radio system to transfer environmental measurements to a central equipment. (Heinonen, Abstract.) Ma, in contrast, as noted above, teaches a quality measurement unit that receives and evaluates the quality of test signals from a remote device. (Ma,

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Abstract.) The Examiner does not explain how Heinonen's system for transmitting environmental measurements could be modified with Ma's system for measuring the quality of received test signals, much less how Heinonen could be modified with Ma's alleged processor and wireless communications device. The Examiner therefore has failed to state a prima facie case of obviousness at least by failing to state a case for a reasonable expectation of success in combining Heinonen and Ma.

Moreover, Heinonen and Ma simply could not be combined. The only element of Ma that could stand in for the recited processor of claim 12 is Ma's remote data storage unit (RSDU). (See Ma, Fig. 1.) The RSDU serves the function of communicating a test signal to an equipment under test. (Ma, Abstract.) However, Heinonen has no "equipment under test;" Heinonen is directed to determining environmental phenomena and has nothing at all to do with measuring or testing equipment. (Mintz, col. 1, lines 10-14.) There is simply no place in the structure disclosed by Mintz for another processor, much less the processor and wireless communication device allegedly disclosed by Ma, which serve to transmit a test signal. Thus, Heinonen and Ma could not have been combined by one of ordinary skill, nor would such combination, if possible, have resulted in the structure required by claim 1.

For at least the foregoing reasons, claim 12, and also claims 13-25 and 32-34 depending therefrom, are in condition for allowance. Similarly, claim 26, and also claims 27-29 and 37, are in condition for allowance.

C. Applicants' dependent claims are separately patentable over the alleged combination of Heinonen and Ma.

Provided herein are a few examples of Applicants' claims depending from claims 12 and 26 that are believed to be separately patentable over the alleged combination of Mintz and Ma. Applicants reserve the right to argue for the separate patentability of dependent claims not mentioned herein in future papers.

1. Claims 13-18

The Examiner rejected claims 13-18 as allegedly unpatentable over the combination of Heinonen and Ma, but conceded that "the combination . . . fails to specifically disclose the limitations of claims 13-18." (Office Action, page 9.) However, without any support in the prior art of record, and after asserting that the limitations of claims 13-18 do not change "the scope of the

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invention,” the Examiner asserted that the combination of Heinonen and Ma would have made the limitations of claims 13-18 obvious “for the purpose of having more ways to measure signals.” (*Id.*)

The Examiner appears to have taken Official Notice that the benefit of “having more ways to measure signals” would have been well known to one of ordinary skill in the art. (*Id.*) Applicants respectfully disagree with this assertion. Further, Applicants seasonably request support for the taking of Official Notice, as provided by 37 CFR 1.104(d)(2) and MPEP § 2144.04. If documentary evidence of such Official Notice is not provided in the next Office Action, Applicants respectfully submit that the rejection of claims 13-18 should be withdrawn.

Further, Applicants disagree that claims 13-18 are not structurally limiting with respect to the claimed invention. Initially, the fact that the Examiner has not addressed each of these distinct claims individually shows that the Examiner has not met her burden of showing that these claims are not separately patentable. Moreover, each of the claims imposes a structural limitation on the claimed invention. To take just one example, claim 13 requires that “the processor is further programmed to convert the input to a measurement.” Applicants respectfully submit that requiring the processor to be so programmed structurally limits the claims invention. Claims 14-18 impose similar structural limitations not found in the prior art of record.

For at least the foregoing reasons, claims 13-18 are separately in condition for allowance.

2. Claim 22

Claim 22 requires that “the measurement device is selected from the group consisting of a gauge and a transducer.” As discussed above regarding claim 10, Ma does not teach or suggest this limitation. Nor does Heinonen teach or suggest a measurement device selected from the group consisting of a gauge or transducer, contrary to the assertion of the Examiner (Office Action, page 6.) Indeed, Heinonen is entirely silent with respect to the devices uses to make the disclosed environmental measurements. Accordingly, Claim 22 is in condition for allowance at least for these reasons.

3. Claim 24

Claim 24 requires that “the processor is further programmed to receive configuration information from the remote device.” As discussed above regarding claim 4, Ma does not teach or suggest this transferring configuration information. Further, contrary to the Examiner’s unexplained

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assertion (Office Action, page 6), Heinonen does not teach the foregoing limitation. Indeed, the cited portion of Heinonen teaches no more than sending a connection request to a base station, and transferring data to a base station. Accordingly, Claim 24 is in condition for allowance at least for these reasons.

4. Claims 27 and 32

Claims 27 and 32 require that “the component is a component in a vehicle.” Claims 27 and 32 are separately patentable at least for the reasons discussed above regarding claims 30 and 31.

III. Dependent Claim 2

Claim 2 stands rejected over the alleged combination of Mintz, Ma, and Heinonen. Claim 2 requires that “the measurement represents at least one output from a sensor.” As noted above, there is no motivation to combine Mintz and Ma, nor is there any expectation that Mintz and Ma could be successfully combined. Further, as noted above, there is no motivation to combine Heinonen and Ma, nor is there any expectation that Heinonen and Ma could be successfully combined. Applicants respectfully submit that there is even less justification for the proposed combination of Mintz, Ma, and Heinonen.

The Examiner appears to have taken Official Notice that “it is well known to utilize sensors in wireless environments.” (Office Action, page 8.) Applicants respectfully disagree with this assertion. Further, Applicants seasonably request support for the taking of Official Notice, as provided by 37 CFR 1.104(d)(2) and MPEP § 2144.04. If documentary evidence of such Official Notice is not provided in the next Office Action, Applicants respectfully submit that the rejection of claim 2 should be withdrawn.

Moreover, it would make no sense to combine Heinonen with Mintz and Ma “to observe environmental phenomena” (see Office Action, page 8), inasmuch as Mintz and Ma have absolutely nothing to do with measuring or observing environmental phenomena. Further, not only would there have been no motivation to combine Mintz and Ma with Heinonen, there is no reasonable expectation that it would have been possible to do so. Significantly, the Examiner has proffered no proposal for how the sensors disclosed by Heinonen (para. 35) could be implemented in the context of either Mintz or Ma. And in fact, because Mintz and Ma do not utilize sensors at all, and have no

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structure for receiving sensor data, the proposed combination of Mintz, Ma, and Heinonen is clearly impossible.

For at least the foregoing reasons, claim 2 is separately in condition for allowance.

CONCLUSION

In view of the foregoing arguments, Applicants believe that the pending application is in condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. If the Examiner believes that a personal interview with Applicants' representative would advance prosecution of this application, or that it is necessary to address any informalities in the application, the Examiner is invited to telephone the undersigned.

Applicants believe that no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. 65856-0054, from which the undersigned is authorized to draw.

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Respectfully submitted,

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